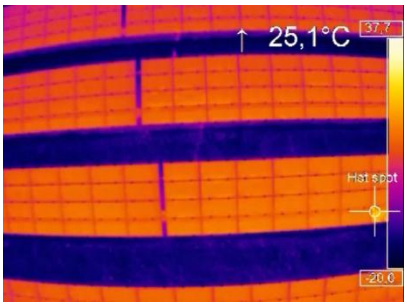
STANGERS

Microcopter Aerial Infrared Surveys

Aerial infrared surveying has considerable advantages in being able to access the most difficult areas of buildings or civil engineering structures. The height of tall buildings, restricted imaging angles and distance are no longer a problem. With high-resolution aerial infrared thermography, slight variations of temperature can be seen from far enough away and from the most optimum angle to actually see the pattern of heat and get the most accurate results.



Normally the survey will be carried out with the pilot controlling the microcopter from the roof of the building and surveying in pre-designated strips up and down the building. He is assisted by at least 2 other experiences professionals for spotting and safety purposes. The microcopter has vertical take-off and landing capability allowing work to proceed even when space is limited.

The microcopter has extremely stable hovering abilities in order to ensure an accurate and clear damage inspection report.
GPS-guided navigation is available for flight control and location of the features recorded during the survey.
The remote control microcopter we use is equipped with a microprocessor based flight control system and special sensors for navigation and flight stabilization.

Pictures which have been taken are stored onboard before being downloaded once the remote control microcopter has landed.

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After an assessment of each site, including technical, management and safety requirements, a flight plan will be submitted to the Civil Aviation Department.

Flight Plan

Weather Evaluation Form	
Date	18/10/2013
Location	Fanling
Wind direction	Southeast
Wind velocity	Level 0-5,0-40km/h
Real-time wind	26-30km
Temperature	24 - 31
Cloudiness	Sunny
UV index	6 (High)

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After downloading, the pictures taken are then sorted and pasted together to obtain a full 2D image at a resolution allowing any damage, debonding and cracking of the structure to be assessed.

For data recording, the infrared camera is controlled by an automatic photo-shooting sequence or continuous video.

A full façade reconstruction consisting of all of the selected images is then assessed by our qualified infrared thermographers and a comprehensive report of the structure survey is prepared

Prior to commencing the survey we will apply for approval from the Civil Aviation Department and will submit details of the survey, safety plans, flight plan and pilot qualifications. We will also apply for any other permits which may need to be obtained from the Highways Department, Police and other relevant authorities including the building management company

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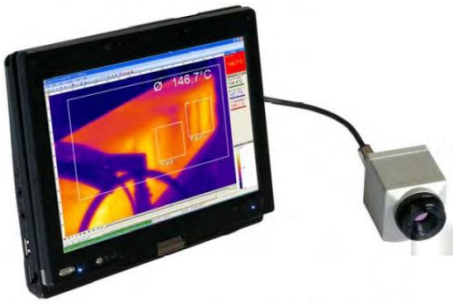

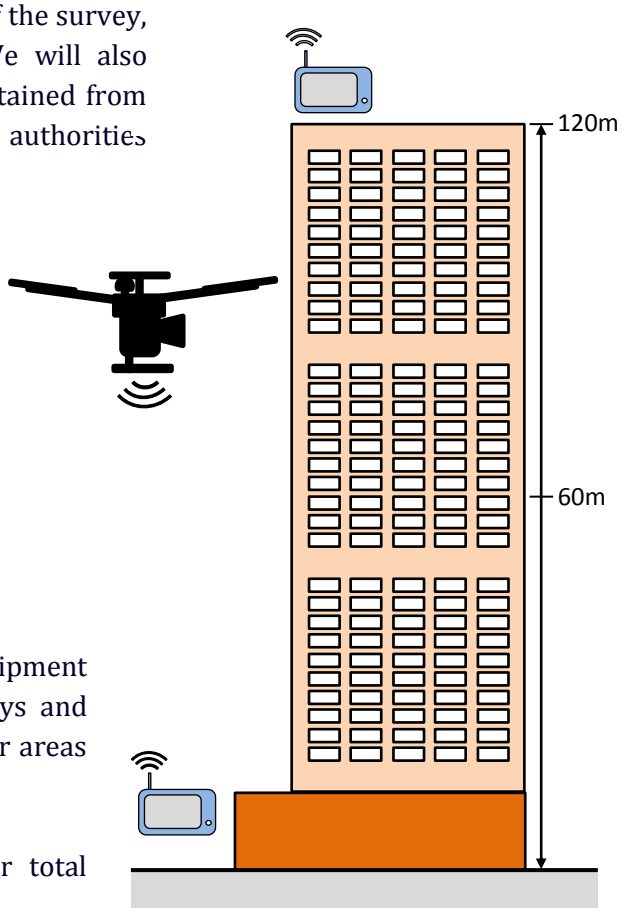

We can also use conventional photographic equipment mounted to the microcopter for curtain wall surveys and building condition surveys for tall buildings and other areas difficult to access.

This service is a powerful tool supplementing our total structural investigation capability

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